

# MODEL G0537 22" SCROLL SAW INSTRUCTION MANUAL



COPYRIGHT © OCTOBER 2003 BY GRIZZLY INDUSTRIAL, INC.

WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.

#5813 PRINTED IN CHINA

#### **ONLINE MANUAL DISCLAIMER**

THE INFORMATION IN THIS MANUAL REPRESENTS THE CONFIGURATION OF THE MACHINE AS IT IS CURRENTLY BEING SHIPPED. THE MACHINE CONFIGURATION CAN CHANGE AS PRODUCT IMPROVEMENTS ARE INCORPORATED. IF YOU OWN AN EARLIER VERSION OF THE MACHINE, THIS MANUAL MAY NOT EXACTLY DEPICT YOUR MACHINE. CONTACT CUSTOMER SERVICE IF YOU HAVE ANY QUESTIONS ABOUT DIFFERENCES. PREVIOUS VERSIONS ARE NOT AVAILABLE ONLINE.

# WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

# **Table Of Contents**

| SECTION 1: SAFETY                              | 2 |
|--|---|
| Safety Instructions For Power Tools            | 2 |
| Additional Safety Instructions For Scroll Saws | 4 |
| SECTION 2: INTRODUCTION                        |   |
| Commentary                                     |   |
| SECTION 3: CIRCUIT REQUIREMENTS                |   |
| 110 Volt                                       |   |
| Grounding                                      |   |
| Extension Cords                                |   |
| SECTION 4: MACHINE FEATURES                    | 8 |
| SECTION 5: SET UP                              |   |
| Unpacking                                      |   |
| G0537 Inventory                                |   |
| Clean Up                                       |   |
| Site Considerations                            |   |
| Beginning Assembly                             |   |
| Attach Blade Guard                             |   |
| Installing Blades                              |   |
| Test Run                                       |   |
| SECTION 6: OPERATIONS                          |   |
| General  |   |
| Blade Speed                                    |   |
| Feed Rate                                      |   |
| Changing Blades                                |   |
| Straight Cuts                                  |   |
| Curved Cuts                                    |   |
| Inside Cuts                                    |   |
| Bevel Cuts                                     |   |
| SECTION 7: MAINTENANCE                         |   |
| Maintenance Safety                             |   |
| General  |   |
| Working Table                                  |   |
| Lubrication                                    |   |
| Replacing Brushes                              |   |
| SECTION 8: SERVICE ADJUSTMENTS                 |   |
| About Service                                  |   |
| Squaring Table                                 |   |
| SECTION 9: REFERENCE INFO                      |   |
| General  |   |
| Aftermarket Accessories                        |   |
| G0537 Parts Breakdown                          |   |
| G0537 Parts Dreakdown G0537 Parts List         |   |
| G0537 Parts List                               |   |
| Troubleshooting Guide                          |   |
| Warranty & Returns                             |   |
| Wallally & DEILIUS                             |   |

# **SECTION 1: SAFETY**

#### **AWARNING**

# For Your Own Safety Read Instruction Manual Before Operating This Equipment

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, <u>WILL</u> result in death or serious injury.

**AWARNING** 

Indicates a potentially hazardous situation which, if not avoided, <u>COULD</u> result in death or serious injury.

**A**CAUTION

Indicates a potentially hazardous situation which, if not avoided, <u>MAY</u> result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

#### **AWARNING**

# **Safety Instructions For Power Tools**

- KEEP GUARDS IN PLACE and in working order.
- 2. REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning on.
- KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
- 4. NEVER USE IN DANGEROUS ENVIRON-MENT. DO NOT use power tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.

- KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept at a safe distance from work area.
- **6. MAKE WORKSHOP CHILD PROOF** with padlocks, master switches, or by removing starter keys.
- NEVER FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
- **8. USE RIGHT TOOL.** DO NOT force tool or attachment to do a job for which it was not designed.

-2- G0537 Scroll Saw

# **A**WARNING Safety Instructions For Power Tools

9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. Conductor size should be in accordance with the chart below. The amperage rating should be listed on the motor or tool nameplate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.

Minimum Gauge for Extension Cords

|            | LENGTH |      |       |
|------------|--------|------|-------|
| AMP RATING | 25ft   | 50ft | 100ft |
| 0-6        | 16     | 16   | 16    |
| 7-10       | 16     | 16   | 14    |
| 11-12      | 16     | 16   | 14    |
| 13-16      | 14     | 12   | 12    |
| 17-20      | 12     | 12   | 10    |
| 21-30      | 10     | 10   | No    |

- 10. WEAR PROPER APPAREL. DO NOT wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- 11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
- **13. DO NOT OVER-REACH.** Keep proper footing and balance at all times.
- **14. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

- 15. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury.
- 16. REDUCE THE RISK OF UNINTENTIONAL STARTING. On machines with magnetic contact starting switches there is a risk of starting if the machine is bumped or jarred. Always disconnect from power source before adjusting or servicing. Make sure switch is in OFF position before reconnecting.
- 17. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- **18. NEVER LEAVE TOOL RUNNING UNAT- TENDED. TURN POWER OFF.** DO NOT leave tool until it comes to a complete stop.
- 19. NEVER OPERATE A MACHINE WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL. Full mental alertness is required at all times when running a machine.
- 20. NEVER ALLOW UNSUPERVISED OR UNTRAINED PERSONNEL TO OPERATE THE MACHINE. Make sure any instructions you give in regards to machine operation are approved, correct, safe, and clearly understood.
- 21. IF AT ANY TIME YOU ARE EXPERIENC-ING DIFFICULTIES performing the intended operation, stop using the machine! Then contact our service department or ask a qualified expert how the operation should be performed.

G0537 Scroll Saw -3-

#### **AWARNING**

# **Additional Safety Instructions For Scroll Saws**

- SCROLL SAW SAFETY BEGINS with your lumber. Inspect your stock carefully before you begin a cut. If you have any doubts about the stability or structural integrity of your stock, DO NOT CUT!
- 2. KEEP HANDS AWAY FROM BLADE. DO NOT hold pieces so small that your fingers go under the blade guard. DO NOT reach underneath work or in blade cutting path with your hands or fingers for any reason.
- **3. AVOID POSITIONS** where a slip could cause your hand to go into the blade.
- 4. NEVER USE YOUR SCROLL SAW WITH THE BLADE GUARD REMOVED.
- 5. WAIT UNTIL BLADE IS STOPPED before clearing away cut-off pieces.
- 6. UNPLUG YOUR SCROLL SAW and remove the safety switch key before changing blades, adjustments, or performing maintenance.

- 7. USE BLADES APPROPRIATE FOR YOUR MACHINE, material being cut, and the type of cut that you are performing.
- 8. DO NOT START THE SAW WITH THE BLADE IN CONTACT WITH THE WORK-PIECE.
- SUPPORT LARGE WORKPIECES to reduce blade breakage and pinching.
- 10. FIRMLY SECURE YOUR SCROLL SAW to a stable, level table or workbench using clamps or bolts. The saw may move when cutting large workpieces if not secured.
- HABITS GOOD AND BAD ARE HARD TO BREAK. Develop good habits in your shop and safety will become secondnature to you.
- 12. PROLONGED EXPOSURE TO WOOD DUST IS KNOWN TO CAUSE CANCER IN HUMANS. Always wear an OSHA-approved respirator when working in an environment that could contain wood dust.

#### **AWARNING**

Like all machines there is danger associated with the Model G0537 Scroll Saw. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

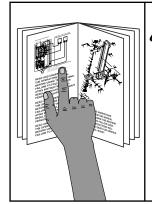


No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.

-4- G0537 Scroll Saw

## **SECTION 2: INTRODUCTION**

#### Commentary



#### **AWARNING**

Lack of familiarity with this manual could cause serious personal injury. Become familiar with the contents of this manual, including all the safety warnings.

We are proud to offer the Model G0537 Scroll Saw. This machine is part of a growing Grizzly family of fine woodworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G0537. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible. If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc. c/o Technical Documentation P.O. Box 2069 Bellingham, WA 98227-2069 Most importantly, we stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc. 1203 Lycoming Mall Circle Muncy, PA 17756 Phone: (570) 546-9663 Fax: (800) 438-5901

E-Mail: techsupport@grizzly.com Web Site: http://www.grizzly.com

The specifications, drawings, and photographs illustrated in this manual represent the Model G0537 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at <a href="https://www.grizzly.com">www.grizzly.com</a>. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!



G0537 Scroll Saw -5-

# **SECTION 3: CIRCUIT REQUIREMENTS**

#### **110 Volt**

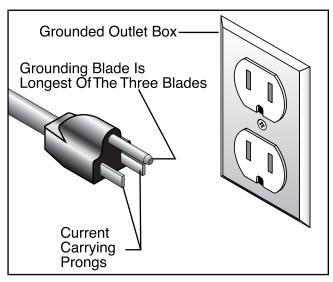
#### **Amperage Draw**

The Model G0537 motor is wired to operate at 110V and draw the following load:

Motor Load ......1.4 Amps

#### **Plug Type**

The Model G0537 is supplied with a NEMA 5-15 plug. DO NOT modify the plug or power cord in any way. See **Figure 1** for a NEMA 5-15 plug and grounded outlet.



**Figure 1.** NEMA 5-15 plug and grounded outlet.

#### **Circuit Breaker Requirements**

Use the following guidelines when choosing a circuit breaker for your machine:

Recommended Circuit Breaker ......5 Amp

#### **Your Circuit Capacity**

Always check to see if the wires in your circuit are capable of handling the amperage load from your machine. If you are unsure, consult a qualified electrician.

If you operate this machine on any circuit that is already close to its capacity, it might blow a fuse or trip a circuit breaker. However, if an unusual load does not exist and a power failure still occurs, contact a qualified electrician or our Service Department at (570) 546-9663.

#### **AWARNING**

Serious personal injury could occur if you connect your machine to the power source before you have completed the assembly process. DO NOT connect the machine to the power source until instructed to do so.



-6- G0537 Scroll Saw

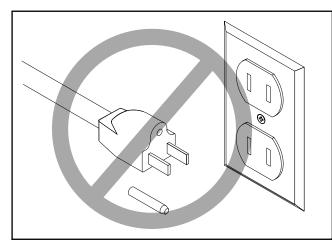
### Grounding

In the event of an electrical short, grounding reduces the risk of electric shock by providing a path of least resistance to disperse electric current. This tool is equipped with a power cord that has an equipment-grounding prong. The outlet must be properly installed and grounded in accordance with all local codes and ordinances.



#### WARNING

Electrocution or a fire can result if the machine is not grounded correctly. Make sure all electrical circuits are grounded. DO NOT use the machine if it is not grounded.



#### **A**CAUTION

This machine must have a ground prong in the plug to help ensure that it is grounded. DO NOT remove ground prong from plug to fit into a two-pronged outlet! If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

#### **NOTICE**

The wire on the power cord with green or green and yellow striped insulation is the grounding conductor.



#### **Extension Cords**

#### Operation

If you find it necessary to use an extension cord:

- Make sure the cord is rated Standard Service (grade S) or better.
- The extension cord must also contain a ground wire and plug pin.
- Use at least a 16 gauge cord.
- DO NOT use a cord longer that 100 feet!

### **A**CAUTION

No single list of electrical guidelines can be comprehensive for all shop environments. Operating this machinery may require additional electrical upgrades specific to your machine and shop environment. It is your responsibility to make sure your electrical systems comply with all local electrical codes and ordinances.



G0537 Scroll Saw -7-

# **SECTION 4: MACHINE FEATURES**

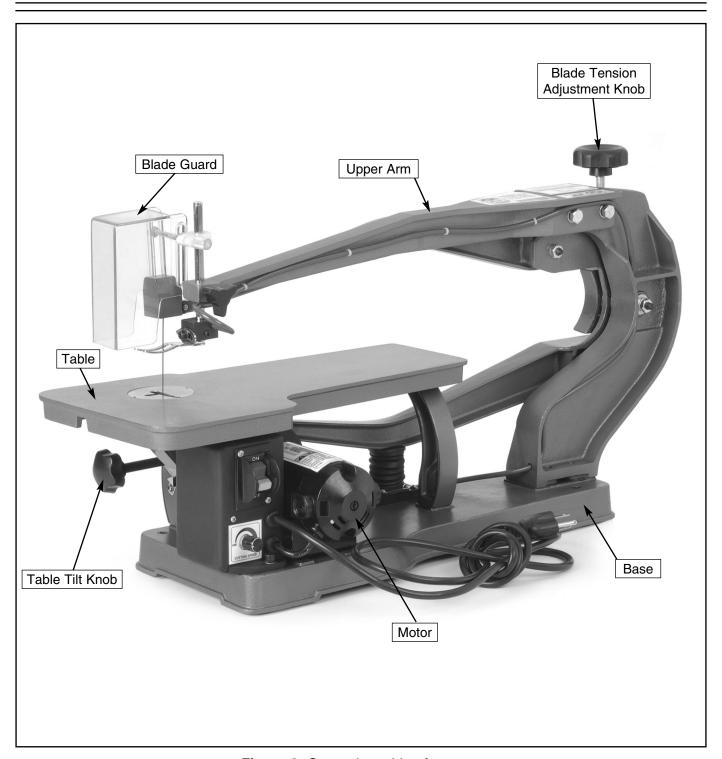


Figure 2. General machine features.



-8- G0537 Scroll Saw

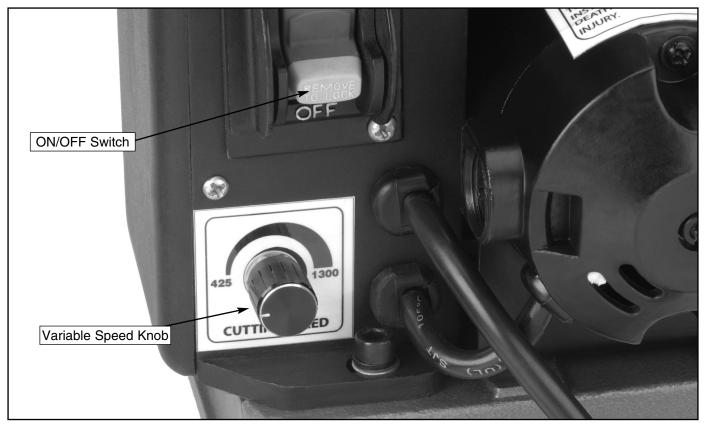


Figure 3. Controls.

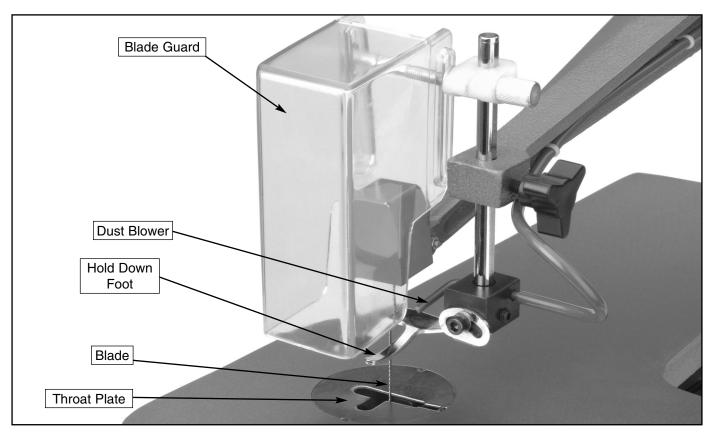


Figure 4. Cutting features.

G0537 Scroll Saw -9-

# **SECTION 5: SET UP**

## Unpacking

The machine was carefully packed when it left the Grizzly warehouse. If you discover the machine is damaged after you have signed for delivery, and the truck and driver are gone, you will need to file a freight claim with the carrier. Save the containers and all packing materials for possible inspection by the carrier or its agent. Without the packing materials, filing a freight claim can be difficult. If you need assistance determining whether you need to file a freight claim, or with the procedure to file one, please contact our Customer Service.



Sharp edges on metal parts may cause personal injury. Examine the edges of all metal parts

before handling.

When you are completely satisfied with the condition of your shipment, inventory its parts.



### **G0537 Inventory**

Figure 5. G0537 Inventory.

6

-10- G0537 Scroll Saw

#### Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact.



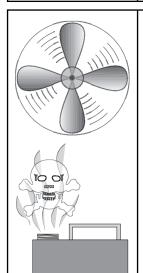
#### WARNING

Gasoline and petroleum products have low flash points and could explode if used to clean machinery. DO NOT use gasoline or petroleum products to clean the machinery.



#### **AWARNING**

Smoking near solvents could ignite an explosion or fire and cause serious injury. DO NOT smoke while using solvents.



#### **AWARNING**

Lack of ventilation while using solvents could cause serious personal health risks, fire, or environmental hazards. Always work in a well ventilated area to prevent the accumulation of dangerous fumes. Supply the work area with a constant source of fresh air.

#### **Site Considerations**

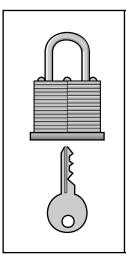
#### Weight Load

The Model G0537 Scroll Saw is a small weight load with a small footprint. Most workbenches should be sufficient to carry the weight of the machine. Reinforce the workbench if you question its ability to support the weight.

#### **Working Clearance**

Working clearances can be thought of as the distances between machines and obstacles that allow safe operation of every machine without limitation. Consider existing and anticipated machine needs, size of material to be processed through each machine, and space for auxiliary stands or work tables. Also consider the relative position of each machine to one another for efficient material handling.

Lighting And Outlets Lighting should be bright enough to eliminate shadow and prevent eye strain. Electrical circuits should be dedicated or large enough to handle the amperage draw. Outlets should be located near each machine so power or extension cords are clear of high-traffic areas. Observe local electrical codes for proper installation of new lighting, outlets, or circuits.



#### WARNING

Unsupervised children and visitors inside your shop could receive serious personal injury. Ensure child and visitor safety by keeping all entrances to the shop locked at all times. DO NOT allow unsupervised children or visitors in the shop at any time.





G0537 Scroll Saw -11-

# **Beginning Assembly**

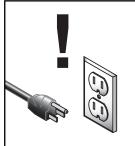
This section covers the basic assembly and adjustment instructions needed to begin operation. Complete the assembly in the order provided in this manual and then read the remaining portion of the manual before attempting any type of operation.

Your safety is important! Please follow the warnings below during this entire section:



#### **ACAUTION**

Sharp edges on metal parts may cause personal injury. Examine the edges of all metal parts before handling.



#### WARNING

Disconnect power to the machine during the entire assembly process. Failure to do this may result in serious personal injury.



#### **Mount Scroll Saw**

#### To attach the scroll saw to a solid surface:

- 1. Locate a rectangular piece of 3/4" plywood that is at least 21"W and at least 20"D.
- 2. Remove the rubber feet from the scroll saw.
- 3. Mount the base of the scroll saw to the center of the plywood with ½" x 2" lag bolts and ½" washers.
- **4.** Clamp the plywood securely to a workbench.
- **5.** To permanently mount the scroll saw to the workbench, screw ½" x 2" (or longer) lag bolts with ½" washers directly to the workbench.

#### **Attach Blade Guard**

#### To attach the blade guard:

 Thread the bolt through the blade guard components as shown in Figure 6, and screw it into the knurled nut.

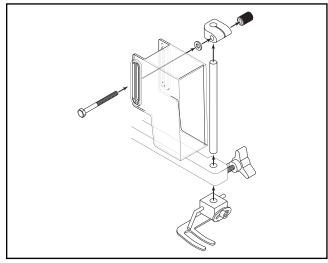


Figure 6. Blade guard assembly.

- Slide the supporting rod through the upper arm and into the hold down block, and tighten the set screw.
- **3.** Attach the guard assembly to the supporting rod and tighten the knurled nut.
- **4.** Adjust the blade guard so that it rides just above the workpiece, and tighten the lock knob shown in **Figure 7.**

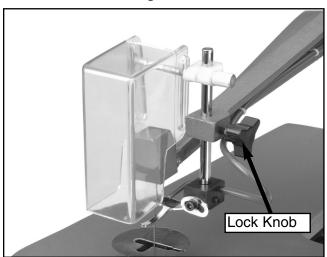


Figure 7. Blade guard adjustment.



#### **Installing Blades**

#### To install the blade:

- Disconnect the machine from the power source.
- Feed the blade through the table and hook it into the lower blade holder as shown in Figure 8. The blade teeth should face forward and down.

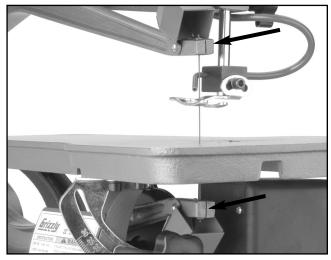


Figure 8. Blade attached to both holders.

- 3. Push down on the upper arm and slide the upper end of the blade into the holder. Make sure that the pins are seated into the grooves in both arms.
- **4.** Increase the tension on the blade until the blade gives a musical sound when plucked.

Note—Determining correct blade tension is subjective and is learned through experience. If the blade is not tensioned enough the blade will drift off the layout line when cutting. The scroll saw will also have excessive noise and vibration. If the blade is too tight the blade could break, causing serious injury. Blades that are tensioned correctly will last longer and are less likely to break.

**5.** Replace the throat plate and lower the blade guards into position.



#### **Test Run**

Once the assembly is complete, the machine needs to be tested. The purpose of the test run is to ensure that there are no problems.

#### To test run the scroll saw:

- **1.** Remove all tools from the scroll saw.
- **2.** Turn the variable speed setting down to 425 SPM.
- **3.** Plug the saw into the power source. Flip the switch *ON*. Keep your finger ready to turn the scroll saw *OFF*.
- Listen for any unusual noises, vibrations or rubbing. If anything sounds unusual, stop the saw immediately.
- **5.** Disconnect the machine from the power source and find the source of the problem before operating further.

NOTE—If you cannot locate the source of an unusual noise or vibration, feel free to contact our service department for help.

#### **AWARNING**

Before starting the saw, make sure you have performed the preceding assembly and adjustment instructions, and you have read through the rest of the manual and are familiar with the various functions and safety issues associated with this machine. Failure to follow this warning could result in serious personal injury.



G0537 Scroll Saw -13-

# **SECTION 6: OPERATIONS**

#### General

This section will cover basic scroll sawing operations. Please read the remaining portion of the manual before attempting any type of operation.

Your safety is important! Please follow the warnings below during this entire section:

### **AWARNING**

Damage to your eyes, lungs, and ears could result from failure to wear safety glasses, a respirator, and hearing protection while using this machine.









#### WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.



# **Blade Speed**

It is important to adjust the blade speed for the type of material being cut. Generally harder materials require a slower blade speed.

#### To adjust the blade speed:

Rotate the knob, shown in **Figure 9**, clockwise to increase the blade speed, and counterclockwise to reduce the speed.

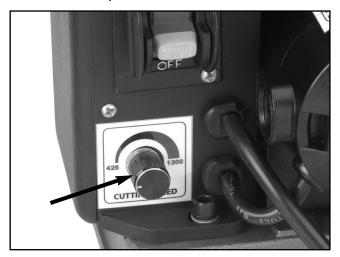


Figure 9. Variable speed knob.

#### **Feed Rate**

The feed rate is the speed an operator moves the workpiece through the saw blade. The correct feed rate depends on the type of material, and its thickness. When using the correct feed rate the workpiece will move easily and the motor will run smoothly. When feeding the work too quickly the motor may bog down and the blade can break causing serious injury.



-14- G0537 Scroll Saw

## **Changing Blades**

A typical scroll saw blade will wear out in ½ to 2 hours, depending on the material cut. Blades become dull quicker when cutting thick material, plywood, laminates, hardwoods and metal.

#### To change the blade:

- Disconnect the machine from the power source.
- 2. Loosen the blade tension adjustment knob.
- **3.** Remove the throat plate and move the blade guards up.
- 4. Push down on the upper arm shown in Figure 10, pull the upper end of blade out of the holder, push down on the blade to free the lower end of the blade, and pull the blade up to remove.

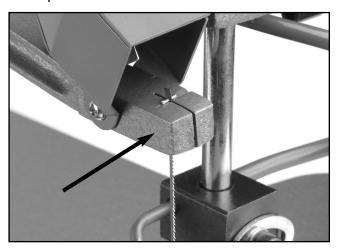


Figure 10. Upper Arm.

5. Feed the new blade through the table and hook it into the lower blade holder as shown in Figure 11. The teeth should face forward and down.

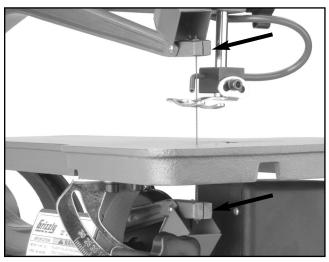


Figure 11. Blade attached to both holders.

- 6. Push down on the upper blade holder and slide the upper end of the blade into the holder. Make sure that the pins are seated into the grooves in both holders.
- 7. Increase the tension on the blade until the blade gives a musical sound when plucked.

Note—Determining correct blade tension is subjective and is learned through experience. If the blade is not tensioned enough the blade will drift off the layout line when cutting. The scroll saw will also have excessive noise and vibration. If the blade is too tight the blade could break, causing serious injury. Blades that are tensioned correctly will last longer and are less likely to break.

**8.** Replace the throat plate and lower the blade guards into position.



G0537 Scroll Saw -15-

#### **Straight Cuts**

Miter gauges and fences are not effective on scroll saws because most scroll saw blades are narrow and tend to follow the grain of the wood. Freehand cutting allows the operator to compensate for blade drift.

#### To make a straight cut:

- **1.** Draw a straight line on your workpiece.
- **2.** Turn the power *ON* and allow the motor to reach full speed.
- 3. Feed the workpiece slowly and steadily into the blade, keeping your hands to either side of the cutting line while pushing down. Make sure the blade is cutting on the waste side of the line (Figure 12).



Figure 12. Straight cut.

**4.** Scroll saw blades will have a tendency to drift. Compensate by adjusting the feed direction.

Note—The variation of hard and soft grain in wood will cause the scroll saw blade to deflect. If you are approaching hard grain at an angle, the feed rate must be slowed and pressure should be applied toward the side with the hard grain.



#### **Curved Cuts**

When cutting curves, preplan your cuts and leave tight inside curves for a second pass to minimize backing out. Cut sharp outside curves by cutting past the curve and looping around to cut from a different angle.

#### To make a curved cut:

- 1. Draw a pattern on your workpiece.
- 2. Choose a blade size based on the tightest curve in the workpiece. Smaller blades can cut tighter curves.
- 3. Rough cut the board down to a workable size.
- 4. Feed the workpiece into the blade with a slow and even pressure. Use your fingers to hold it down and thumbs to steer as shown in Figure 13.



Figure 13. Making a curved cut.

Note—When approaching a tight radius, slow down your feed rate, but do not stop. Give the teeth time to make the cut. Forcing the workpiece through the curve will cause the blade to twist or break. If your cut produces waste in the curve's interior, turn the power off and wait until all motion stops before removing the waste.



-16- G0537 Scroll Saw

#### **Inside Cuts**

Inside cuts such as circles or the insides of closed letters can be easily cut with your scroll saw by threading the blade through a hole drilled in the workpiece.

#### To make an inside cut:

- 1. Disconnect the machine from the power source.
- 2. Remove blade and throat plate.
- **3.** Drill a hole in the waste portion of the work-piece that is large enough for the pins to fit through.
- **4.** Thread the blade through the hole in the workpiece as shown in **Figure 14**.

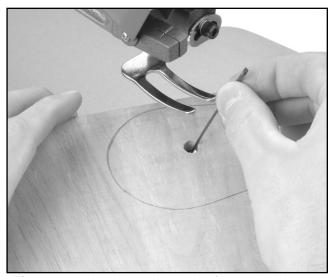


Figure 14. Installing the blade for an inside cut.

- **5.** Replace the throat plate, mount the blade and tension it.
- **6.** Make the inside cut and go back to **step 1** for the next inside cut.



#### **Bevel Cuts**

Bevel cuts can be used for miters, cope joints, and making relief or recessed projects.

#### To make a bevel cut:

- Draw your pattern as described in the previous sections.
- 2. Adjust the table to the desired angle.
- **3.** Using the same principles as in the previous sections, feed the work slowly and evenly into the blade, remembering not to force the workpiece (**Figure 15**).



**Figure 15.** Making a bevel cut. (Guard removed for clarity)

**4.** Wait until all motion has stopped before removing waste near the blade.

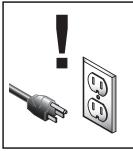


G0537 Scroll Saw -17-

## **SECTION 7: MAINTENANCE**

#### **Maintenance Safety**

Your safety is important! Please follow the warnings below during this entire section:



#### **AWARNING**

power to the machine before performing maintenance. Failure to do this may result in serious personal injury.



#### WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing rolled up and long hair tied up and away from machinery.



#### WARNING

Projectiles from the machine could cause serious eye injury. Wear safety glasses at all times.



#### General

Regular periodic maintenance on the Model G0537 will ensure optimum performance. Make a habit of inspecting the machine each time you use it.

Before each use, look for the following conditions:

- 1. Loose bolts.
- 2. Damaged blades.
- 3. Worn switch.
- 4. Worn or damaged cords and plugs.
- **5.** Any other condition that could hamper the safe operation of this machine.



# Working Table

The table and other non-painted surfaces on your machine should be protected against rust and pitting. Wiping the table clean after every use ensures that moisture from wood dust does not remain on bare metal surfaces.

Tables can be kept rust-free with regular applications of products like SLIPIT® or Boeshield® T-9. For long term storage you may want to consider products like Kleen Bore's Rust Guardit™.



-18- G0537 Scroll Saw

#### Lubrication

Lubricate the upper and lower arm bushings with light machine oil once a month or every 50 hours of use.

#### To lubricate the bushings:

- Disconnect the machine from the power source.
- 2. Lay the machine on its side as shown in Figure 16.

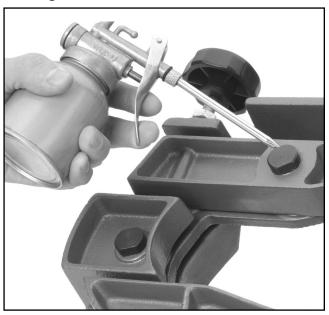


Figure 16. Lubricating bushings.

- Apply a generous amount of machine oil to the end of the bolts that hold the bushings in place.
- **4.** Leave the scroll saw on its side and allow the machine oil to soak in overnight.



# **Replacing Brushes**

Replacing the motor brushes is a simple job that may be necessary after extended use.

#### To replace the motor brushes:

- 1. Disconnect the machine from the power source.
- Remove the motor brush caps with a flathead screwdriver. One of the brushes is shown in Figure 17. The other is on the opposite side of the motor.



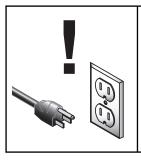
Figure 17. Motor brush.

- **3.** Remove the brushes and check for black carbon build-up or damage. If necessary, replace the brushes.
- **4.** Slide brushes back into the slot and replace the brush caps.



G0537 Scroll Saw -19-

# **SECTION 8: SERVICE ADJUSTMENTS**



#### **▲**WARNING

Always disconnect power to the machine before performing service adjustments. Failure to do this may result in serious personal injury.

#### **About Service**

This section is designed to help the operator with adjustments that were made at the factory and that might also need to be made during the life of the machine.

This section is provided for your convenience—it is not a substitute for the Grizzly Service Department. If any adjustments arise that are not described in this manual, then feel free to call the Grizzly Service Department at (570) 546-9663.

Similarly, if you are unsure of how to perform any procedure in this section, the Grizzly Service Department will be happy to guide you through the procedures or help in any other way.



## **Squaring Table**

To ensure that the table is square:

- Disconnect the machine from the power source.
- 2. Loosen the table tilt knob shown in Figure 18.

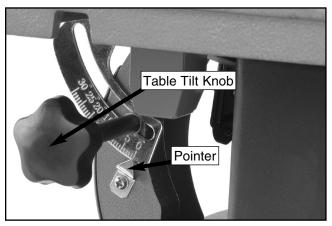


Figure 18. Pointer and table tilt knob.

**3.** Place a square on the table and against the blade as shown in **Figure 19**.

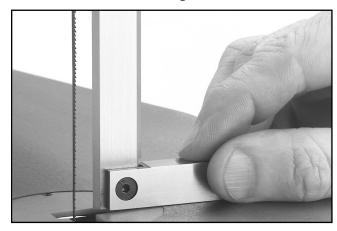


Figure 19. Check the angle with a square.

- **4.** Adjust the table until the square and the blade are parallel.
- **5.** Tighten the table tilt knob, loosen the pointer shown in **Figure 18** and adjust it to 0°.



-20- G0537 Scroll Saw

# **SECTION 9: REFERENCE INFO**

#### General

This section contains the following subsections for the Model G0537: aftermarket accessories, data sheets, parts diagrams and list, troubleshooting, and warranty/return information.

If you need parts or help in assembling your machine, or if you need operational information, call the service department at (570) 546-9663. Trained service technicians will be glad to help you.

If you have any comments regarding this manual, please write to Grizzly at the address below:

Grizzly Industrial, Inc.

c/o Technical Documentation
P.O. Box 2069
Bellingham, WA 98227-2069

We recommend you keep a copy of our current catalog for complete information regarding Grizzly's warranty and return policy. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department at the location listed below.

Grizzly Industrial, Inc. 1203 Lycoming Mall Circle Muncy, PA 17756 Phone: (570) 546-9663 Fax: (800) 438-5901

E-Mail: techsupport@grizzly.com Web Site: http://www.grizzly.com.



# Aftermarket Accessories

To order any of the aftermarket accessories below, find the model number in bold and call our customer service line 24 hours a day at 1-800-523-4777.

#### **Replacement Blades:**

| MODEL | #     | WIDTH  | TPI | TOOTH |
|-------|-------|--------|-----|-------|
| G6670 | 0.008 | 0.078" | 25  | Skip  |
| G6671 | 0.019 | 0.125" | 10  | Skip  |
| G6672 | 0.018 | 0.110" | 15  | Skip  |

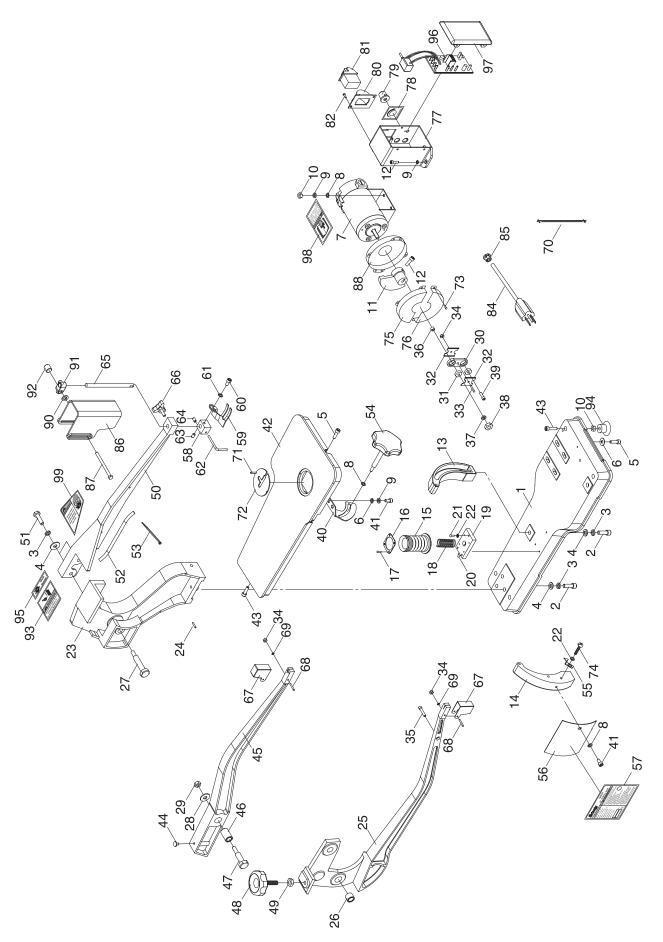
#### **Scroll Saw Abrasive Packs:**

Quickly smooths edges of wood, plastic, metal and composite scroll saw projects. Eliminate hand sanding. ½" grits are 80, 120, 180 & 220. ½" grits are 120, 180, 220 & 320. Packs of 4.

| MODEL | <b>TYPE</b> | WIDTH |
|-------|-------------|-------|
| H5323 | Pin         | 1/2"  |
| H5324 | Pin         | 1/4"  |



G0537 Scroll Saw -21-



-22- G0537 Scroll Saw

| REF      | PART #               | DESCRIPTION                            |
|----------|----------------------|--|
| 1        | P0537001             | Base                                   |
| 2        | PSB31M               | Cap Screw M8-1.25 x 25                 |
| 3        | PLW04M               | Lock Washer 8mm                        |
| 4        | PW01M                | Flat Washer 8mm                        |
| 5        | PSB02M               | Cap Screw M6-1 x 20                    |
| 6        | PW03M                | Flat Washer 6mm                        |
| 7        | P0537007             | Motor                                  |
| 8        | PW03M                | Flat Washer 6mm                        |
| 9        | PLW03M               | Lock Washer 6mm                        |
| 10       | PN01M                | Hex Nut M6-1                           |
| 11       | P0537011             | Rocker Arm                             |
| 12       | PSB28M               | Cap Screw M6-1 x 15                    |
| 13       | P0537013             | Rear Strut                             |
| 14       | P0537014             | Front Strut                            |
| 15       | P0537015             | Air Bellows                            |
| 16       | P0537016             | Pressure Plate                         |
| 17       | PHTEK3M              | Tap Screw M35 x 8                      |
| 18       | P0537018             | Spring                                 |
| 19       | P0537019             | Anchor Plate                           |
| 20       | P0537020             | Air-intake Opening                     |
| 21       | PS56M                | Phip Hd Scr M47 x 16                   |
| 22       | PW05M                | Flat Washer 4mm                        |
| 23       | P0537023             | Pillar                                 |
| 24       | PRP42M               | Roll Pin 3 x 20mm                      |
| 25       | P0537025             | Lower Arm                              |
| 26       | P0537026             | Bushing                                |
| 27       | P0537027             | Fulcrum Bolt                           |
| 28       | PW01M                | Flat Washer 8mm                        |
| 29       | PN03M                | Hex Nut M8-1.25                        |
| 30       | P0537030             | Connecting Link                        |
| 31       | P625                 | Bearing 625ZZ                          |
| 32       | P0537032             | Connecting Link Plate                  |
| 33       | PS50M                | Phlp Hd Scr M35 x 12                   |
| 34       | PN07M                | Hex Nut M35                            |
| 35       | PSB95M               | Cap Screw M58 x 30                     |
| 36       | P0537036             | Sleeve                                 |
| 37       | PLW01M               | Lock Washer 5mm                        |
| 38       | PN06M                | Hex Nut M58                            |
| 39       | PSB53M               | Cap Screw M58 x 18                     |
| 40       | P0537040             | Table Tilt Scale                       |
| 41       |                      | Hex Bolt M6-1 x 12                     |
| 42       | PB02M<br>P0537042    | Table                                  |
| 43       | PB29M                | Hex Bolt M6-1 x 30                     |
| 44       | P0537044             | Pressure Plate                         |
| 45       | P0537044<br>P0537045 |  |
| 46       |                      | Upper Arm                              |
| 46       | P0537046             | Bushing Fulcrum Bolt                   |
|          | P0537047             |  |
| 48<br>49 | P0537048<br>PN02M    | Adjustment Knob (Male) Hex Nut M10-1.5 |
| 49       | TINUZIVI             | FIEX NUL WITO-1.5                      |

| REF | PART #   | DESCRIPTION                       |
|-----|----------|-----------------------------------|
| 50  | P0537050 | Arm                               |
| 51  | PB07M    | Hex Bolt M8-1.25 x 25             |
| 52  | P0537052 | Plastic Tube                      |
| 53  | P0537053 | Cable Tie                         |
| 54  | P0537054 | Tilting Locking Knob M6           |
| 55  | P0537055 | Pointer                           |
| 56  | P0537056 | Rocker Arm Guard                  |
| 57  | P0537057 | Main Label                        |
| 58  | P0537058 | Lower Connecting Block            |
| 59  | P0537059 | Hold-Down Foot                    |
| 60  | PSB86M   | Cap Screw M58 x 10                |
| 61  | PW02M    | Flat Washer 5mm                   |
| 62  | P0537062 | Dust Blower                       |
| 63  | PSS01M   | Set Screw M6-1 x 10               |
| 64  | PSS16M   | Set Screw M8-1.25 x 10            |
| 65  | P0537065 | Support Post                      |
| 66  | P0537066 | Locking Knob M6-1 x 17            |
| 67  | P0537067 | Chuck Guard                       |
| 68  | P0537068 | Hex Bolt M35 x 22                 |
| 69  | PLW09M   | Lock Washer 3mm                   |
| 70  | P0537070 | Blade                             |
| 71  | PRP14M   | Roll Pin 3 x 6mm                  |
| 72  | P0537072 | Table Insert                      |
| 73  | PS17M    | Phlp Hd Scr M47 x 6               |
| 74  | PS07M    | Phlp Hd Scr M47 x 8               |
| 75  | P0537075 | Upper Rocker Arm Guard            |
| 76  | P0537076 | Lower Rocker Arm Guard            |
| 77  | P0537077 | Switch Box                        |
| 78  | P0537078 | Speed-Adjustment Label            |
| 79  | P0537079 | Speed-Adjustment Knob             |
| 80  | P0537080 | Switch Plate                      |
| 81  | P0537081 | Switch                            |
| 82  | PHTEK10M | Tap Screw M47 x 11                |
| 84  | P0537084 | Plug                              |
| 85  | P0537085 | Strain Relief                     |
| 86  | P0537086 | Blade Guard                       |
| 87  | P0537087 | Hex Bolt M6-1 x 80                |
| 88  | P0537088 | Back Rocker Arm Guard             |
| 90  | PW03M    | Flat Washer 6mm                   |
| 91  | P0537091 | Upper Connecting Block            |
| 92  | P0537092 | Knurled Nut M6                    |
| 93  | P0537093 | Disconnect Power Label            |
| 94  | P0537094 | Rubber Foot                       |
| 95  | P0537095 | Blade Tensioning Label            |
| 96  | P0537096 | Circuit Board                     |
| 97  | P0537097 | Switch Box Cover                  |
| 98  | P0537098 | Read Manual Warning               |
| 99  | P0537099 | Respirator/Safety Glasses Warning |

G0537 Scroll Saw -23-



# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

#### **GRIZZLY MODEL G0537 22" SCROLL SAW**

| Design Type         | Bench Model                            |
|---------------------|--|
| Overall Dimensions: |  |
| Table               | 9" x 16¾"                              |
|                     | 151/4"                                 |
|                     | 285%"                                  |
|                     | 10"                                    |
| ·                   | 16" x 13" x 30½"                       |
|                     | 54 lbs.                                |
|                     | 48.5 lbs.                              |
| •                   | 20" x 8½"                              |
| Capacities:         |  |
|                     | 217/8"                                 |
|                     | 21/8"                                  |
|                     | 1"                                     |
| Table Tilt          | 10 – 30°                               |
| Blade and Movement: |  |
| Blade               | 5" Pin-Type or Plain End               |
| Strokes per minute  | 425 – 1300                             |
| Stroke              |  |
| Construction:       |  |
| Base                | Cast Iron                              |
| Table               | Cast Iron                              |
| Arms                | Die Cast Aluminum                      |
| Motor:              |  |
| • •                 | TEFC Brush Type                        |
|                     |  |
|                     | 1.4                                    |
|                     | Single Phase / 110V                    |
|                     | 60 Hertz / 425 – 1300 RPM              |
|                     | Toggle ON/OFF w/ Safety Lock Tab       |
|                     | Direct Drive, Counterbalanced Flywheel |
|                     | Shielded & Lubricated Ball Bearings    |
| Features:           |  |
|                     | Blade Tension Adjustment Knob          |
|                     | Adjustable Hold Down Foot              |
|                     | Blower Bellows System                  |

Specifications, while deemed accurate, are not guaranteed.

-24- G0537 Scroll Saw

# **Troubleshooting Guide**

| SYMPTOM   | POSSIBLE CAUSE  | CORRECTIVE ACTION   |
|---|---|---|
| Blade won't stay on layout line.                            | Blade not tensioned enough.   | Increase tension on blade.  |
| Excessive blade breakage.                                   | Blade tensioned too much.     Upper and lower blade guides are not perfectly in line.   | Loosen blade tension.     Loosen guides and line them up.   |
| Motor will not start.                                       | Low voltage.     Open circuit in motor or loose connections.  | Check power line for proper voltage.     Inspect all lead connections on motor for loose or open connections.   |
| Motor will not start; fuses or circuit breakers blow.       | Short circuit in line cord or plug.     Short circuit in motor or loose connections.     Incorrect fuses or circuit breakers in power line. | Inspect cord or plug for damaged insulation and shorted wires.     Inspect all connections on motor for loose or shorted terminals or worn insulation.     Install correct fuses or circuit breakers. |
| Motor overheats.  | Motor overloaded.     Air circulation through the motor restricted.   | Reduce load on motor.     Clean out motor to provide normal air circulation.  |
| Motor stalls (resulting in blown fuses or tripped circuit). | Short circuit in motor or loose connections.     Low voltage.     Incorrect fuses or circuit breakers in power line.     Motor overloaded.  | Inspect connections on motor for loose or shorted terminals or worn insulation.     Correct the low voltage conditions.     Install correct fuses or circuit breakers.      Reduce load on motor.     |
| Machine slows or stalls when operating.                     | Applying too much pressure to work-piece.     Badly worn motor brushes.   | Feed workpiece slower.     Replace motor brushes.   |

G0537 Scroll Saw -25-

#### **Warranty & Returns**

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.



-26- G0537 Scroll Saw

# CUT ALONG DOTTED LINE

#### **WARRANTY CARD**

| Nan   | ne                                     |  |           |   |  |
|-------|--|--|-----------|---|--|
| Stre  | et                                     |  |           |   |  |
| City  |  |  |           | State   | Zip  |
|       |  |  |           | FAX   |  |
|       |  |  |           |   |  |
| MOI   | DEL #                                  | Serial #                                 |           | Order #   |  |
| cours | e, all information is strictly confide |  | narketing | purposes to help us develop better  | products and services. Of                        |
| 1.    | How did you learn about us?            |  | 9.        | How many of your woodworking mac  | hines are Grizzly?                               |
|       | Advertisement                          | Friend                                   | ٥.        | rien many er year meeamenning mae   |  |
|       | Catalog                                | Card Deck                                |           |   |  |
|       | World Wide Web                         |  | 10.       | Which benchtop tools do you own? C  | theck all that apply.                            |
|       | Other                                  |  |           | 1" x 42" Belt Sander  | 6" - 8" Grinder                                  |
| 2.    | Which of the following magazines do    | o you subscribe to.  Practical Homeowner |           | 5" - 8" Drill Press<br>8" jointer<br>8" - 10" Bandsaw<br>Disc/Belt Sander     | Mini Lathe10" - 12" Thickness Planer/_Scroll Saw |
|       | Cabinetmaker                           | Shop Notes                               |           | Mini Jointer  | Spindle/Belt Sander                              |
|       | Family Handyman                        | Today's Homeowner                        |           |   |  |
|       | Fine Homebuilding                      | WOOD                                     |           | Other   |  |
|       | Fine Woodworking<br>Home Handyman      | Wooden Boat<br>Woodshop News             | 11.       | How many of the machines checked  | above are Grizzly?                               |
|       | Journal of Light Construction          | Woodsmith                                | • • • •   | Trow many or the machines encoded   | above are anzziy.                                |
|       | Old House Journal                      | Woodwork                                 | 12.       | Which portable/hand held power tools  | s do you own? Check all that apply.              |
|       | Popular Mechanics                      | Woodworker                               |           | D. 11.0   | 0.1% 1.0   |
|       | Popular Science                        | Woodworker's Journal                     |           | Belt Sander Biscuit Joiner  | Orbital Sander Palm Sander                       |
|       | Popular Woodworking                    | Workbench                                |           | Circular Saw  | Portable Planer                                  |
|       | Other                                  |  |           | Detail Sander   | Saber Saw  |
| 3.    | Which of the following woodworking     | /remodeling shows do you watch?          |           | Drill/Driver  | Reciprocating Saw                                |
| 0.    | writer of the following woodworking    | remodeling shows do you watern           |           | Miter Saw   | Router   |
|       | Backyard America                       | The New Yankee Workshop                  |           | Other   |  |
|       | Home Time                              | This Old House                           |           |   |  |
|       | The American Woodworker                | Woodwright's Shop                        | 13.       | What machines/supplies would you li   | ke Grizzly Industrial to carry?                  |
|       | Other                                  |  |           |   |  |
| 4.    | What is your annual household inco     | me?                                      |           |   |  |
|       | 000 000 000                            | \$60,000 \$60,000                        |           |   |  |
|       | \$20,000-\$29,999<br>\$30,000-\$39,999 | \$60,000-\$69,999<br>\$70,000-\$79,999   | 14.       | What new accessories would you like   | Grizzly Industrial to carry?                     |
|       | \$40,000-\$49,999                      | \$80,000-\$89,999                        |           |   |  |
|       | \$50,000-\$59,999                      | \$90,000 +                               |           |   |  |
|       |  |  |           |   |  |
| 5.    | What is your age group?                |  | 15.       | What other companies do you purcha  | ase your tools and supplies from?                |
|       | 20-29                                  | 50-59                                    |           |   | усы поло шла осрриос поли                        |
|       | 30-39                                  | 60-69                                    |           |   |  |
|       | 40-49                                  | 70 +                                     |           |   |  |
| 6.    | How long have you been a woodwo        | rker?                                    | 16.       | Do you think your purchase represen   | ts good value?                                   |
|       | 0 2 Voors                              | 9 20 Vooro                               |           |   |  |
|       | 0 - 2 Years<br>2 - 8 Years             | 8 - 20 Years<br>20+ Years                |           | Yes   | No   |
|       |  |  | 17.       | Would you recommend Grizzly Indus   | trial to a friend?                               |
| 7.    | How would you rank your woodwork       | king skills?                             | •••       | rround you rooonona aniiii maac   |  |
|       | Cimple                                 | Advanced                                 |           | Yes   | No   |
|       | Simple Intermediate                    | Master Craftsman                         | 10        | Would you allow up to upp your name   | and a reference for Crimely aveternor            |
| 8.    | What stationary woodworking tools      | _  | 18.       | Would you allow us to use your name in your area? <b>Note: We never use n</b> |  |
|       | , g                                    | ,  |           | Yes   | No   |
|       | Air Compressor                         | Panel Saw                                |           |   |  |
|       | Bandsaw                                | Planer                                   | 19.       | Comments:   |  |
|       | Drill Press Drum Sander                | Power Feeder<br>Radial Arm Saw           |           |   |  |
|       | Dust Collector                         | Shaper                                   |           |   |  |
|       | Horizontal Boring Machine              | Spindle Sander                           |           |   |  |
|       | Jointer                                | jointer                                  |           |   |  |
|       | Lathe<br>Mortiser                      | Vacuum Veneer Press<br>Wide Belt Sander  |           |   |  |
|       | IVIOI (13C)                            | wide beit Salidel                        |           |   |  |
|       | Other                                  |  |           |   |  |

| FOLD ALONG DOTTED LINE |                        |
|------------------------|------------------------|
|                        | Place<br>Stamp<br>Here |



GRIZZLY INDUSTRIAL, INC. P.O. BOX 2069 BELLINGHAM, WA 98227-2069

| EOLD ALONG DOTTED LINE |  |
|------------------------|--|

Send a Grizzly Catalog to a friend:

| Name   |        |     |  |
|--------|--------|-----|--|
| Street |        |     |  |
| City   | _State | Zip |  |



Buy Direct and Save with Grizzly® - Trusted, Proven and a Great Value!

Visit Our Website Today And Discover Why Grizzly® Is The Industry Leader!

- SECURE ORDERING
- ORDERS SHIPPED WITHIN 24 HOURS
- E-MAIL RESPONSE WITHIN ONE HOUR

-OR-

# Call Today For A FREE Full Color Catalog







